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IRON AGE JUNE 20, 1986

MANUFACTURING MANAGEMENT

CAD/CAM DRIVES DEEP INTO THE FACTORY

JUNE 20, 1986 VOL. 229, NO. 12

IRON AGE
MANUFACTURING MANAGEMENT

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PRICE & PRODUCTION DATA

(Effective May 19,1986)

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	185	189	184	175
Pittsburgh	248	243	241	227
Youngstown	109	101	105	102
Lake Erie	115	123	163	153
Detroit	156	151	149	158
Chicago	451	484	509	489
Midwest	167	173	170	150
Southern	195	192	205	249
Western	91	93	88	97
U.S. Production	1,717	1,749	1,814	1,800

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports unless otherwise stated. Rail transportation, handling and unloading may be charged to buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural) ..... gross-ton 58.0*
Pellets (per iron unit natural) ..... gross-ton 59.4**
Pellets (per iron unit natural) ..... gross-ton 72.5-86.9***
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer ..... gross-ton $30.03-31.53

*58.0¢—Mineral Services, Inc. as of 8/13/85. **59.4¢—Pickands Mather, 8/1/85, delivered hold of vessel, upper Lake ports. ***72.5¢—U.S. Steel as of 8/16/85. 86.9¢—Oglebay Norton 3/25/82; Hanna Mining and Cleveland-Cliffs, 2/26/82.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective May 19,1986)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1986	To Date 1985
Net tons, in thousands	1,717	1,749	34,701	33,725
Capability Utilization Rate	69.4	70.7	71.3	66.8

Composite Prices (Effective May 23, 1986)	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 5/19/86)	24.850	24.850	24.607	27.582
Pig Iron** (Net ton= 2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.*** (Gross ton=2240 lbs.)	$ 71.50	$ 71.50	$ 73.17	$ 70.17
No. 2 bundles	$ 52.17	$ 52.17	$ 52.83	$ 49.17

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	$ 70.50	$ 70.50	$ 73.50	$ 72.50
No. 1 steel, Philadelphia	71.50	71.50	71.50	69.50
No. 1 steel, Chicago	72.50	72.50	74.50	68.50
No. 1 bundles, Detroit	57.50	57.50	62.50	64.50
Low Phos., Youngstown	70.50	70.50	73.50	57.50
No. 1 mach'y cast., Pgh	73.50	73.50	73.50	71.50
No. 1 mach'y cast., Phila	93.50	93.50	93.50	91.50
No. 1 mach'y cast., Chi	107.50	107.50	109.50	108.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
**Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective May 23,1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	52.64	53.03	5/26/86
Copper (C)	64.50-68.00	65.00-68.00	5/23/86
Lead	19.25-20.00	19.00-20.00	5/22/86
Magnesium Ingot	153.00	148.00	12/ 9/85
Nickel (LME)	183.28	184.73	5/26/86
Zinc	35.00	33.00-35.00	5/ 6/86

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	$236.00
Beryllium-copper, per lb. cont. Be	$144.00
Beryllium 97% powder 200	$197.00
Cadmium, ton lots	$1.00
Calcium, ton lots, crown	$3.92
Chromium, 99.5% electro	$4.62
Cobalt, 99%, cathode	$11.70
Gold per troy oz.	$341.10
Indium, dollars per troy oz.	$2.65
Iridium, dollars per troy oz.	$420.00
Magnesium sticks, 10,000 lbs.	$2.02
Mercury, per 76-lb., f.o.b. N.Y.	$270.00-285.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	$3.25
Palladium, per troy oz.	$108.00
Platinum, per troy oz.	$407.00
Rhodium, per troy oz.	$1,160.00
Silver ingots, per troy oz.	$5.16
Titanium sponge, melt grade	$3.40-3.55
Tungsten powder, hyd red.	$9.50-9.85
Vanadium	$6.00
Zirconium sponge	$12.00-17.00

(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Kuala Lumpur in Malaysian dollars per kilo.)

May 19—243.60 *May 22—243.01
May 20—242.79 May 23—N.A.
May 21—242.92

Scrap Prices
Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turnings
Copper	62	56
Yellow brass	52¼	46¼
Red brass	57	49¾
Comm. bronze	58½	50¾
Mang. bronze	41¼	40½
Free cutting rod ends	49	48

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	58
No. 2 copper wire	50
Light copper	41

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	54
No. 2 copper wire	46
Light copper	37
No. 1 composition	46
No. 1 comp. turnings	45
Hvy. yellow brass solids	30
Hvy. yellow brass turnings	26
Radiators	34

Aluminum

New mixed clips	33	— 34
Old sheet	32	— 33
Old cast	32	— 33
Clean dry borings	33	— 34

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	28	— 29
Mixed I.C. clips	26	— 27
Old sheets and cast	24	— 25
Borings and turnings	20	— 21
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	48	— 49
No. 2 copper wire	39	— 40
Light copper	33	— 34
Radiators	30	— 31
No. 1 composition	39	— 40
No. 1 composition turnings	35	— 36
Cocks and faucets	28	— 29
Clean heavy yellow brass	27	— 28
Brass Pipe	28	— 29
New soft brass clippings	39	— 40

Lead

Heavy soft lead	5	— 7
Whole batteries	1	— 3
Type metal	15	— 17
Electrotype	13	— 14

Nickel

Nickel solids	110	—120
Nickel rod ends	110	—120
Nickel sheets, clips	110	—120
Nickel turnings	25	— 35

Zinc

New zinc clippings	15	— 16
Old diecast zinc	11	— 12

EFFECTIVE MAY 23,1986

(Effective May 23,1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 70.00 to	$ 71.00
No. 2 hvy. melting	60.00 to	61.00
No. 1 dealer bundles	83.00 to	84.00
No. 1 factory bundles (auto)	86.00 to	87.00
No. 2 bundles	46.00 to	47.00
No. 1 busheling	80.00 to	81.00
Machine shop turnings	8.00 to	9.00
Shoveling turnings	43.00 to	44.00
Cast iron borings	42.00 to	43.00
Low phos. punchings plate	99.00 to	100.00
Heavy turnings	60.00 to	61.00
No. 1 RR hvy. melting	80.00 to	81.00
Rails, 2 ft. and under	93.00 to	94.00
Scrap rails, random lgth	78.00 to	79.00
RR specialties	93.00 to	94.00
No. 1 machinery cast	73.00 to	74.00
Cupola cast	66.00 to	67.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	520.00 to	530.00
18-8 turnings	420.00 to	430.00

Chicago

No. 1 hvy. melting	$ 72.00 to	$ 73.00
No. 2 hvy. melting	68.00 to	69.00
No. 1 dealer bundles	83.00 to	84.00
No. 1 factory bundles (auto)	85.00 to	86.00
No. 2 dealer bundles	58.00 to	59.00
No. 1 busheling	79.00 to	80.00
Shredder scrap	79.00 to	80.00
Machine shop turnings	30.00 to	31.00
Mixed borings and turnings	25.00 to	26.00
Shoveling turnings	32.00 to	33.00
Cast iron borings	44.00 to	45.00
Low phos. forge crop	99.00 to	100.00
Low phos. punchings plate 1/4 in. and heavier	114.00 to	115.00
Low phos. 2 ft. and under	108.00 to	109.00
No. 1 RR hvy. melting	76.00 to	77.00
Scrap rails random lgth	79.00 to	80.00
Reroller rails	104.00 to	105.00
Rails, 2 ft. and under	101.00 to	102.00
RR couplers and knuckles	92.00 to	93.00
RR car axles	106.00 to	107.00
No. 1 machinery cast	107.00 to	108.00
Cupola cast	94.00 to	95.00
Stove plate	99.00 to	100.00
Steel car wheels	89.00 to	90.00
Stainless		
18-8 bundles and solids	495.00 to	505.00
18-8 turnings	405.00 to	415.00
430 bundles and solids	125.00 to	135.00
430 turnings	85.00 to	95.00

Philadelphia

No. 1 hvy. melting	$ 70.00 to	$ 73.00
No. 2 hvy. melting	62.00 to	65.00
No. 1 dealer bundles	80.00 to	83.00
No. 2 dealer bundles	50.00 to	53.00
No. 1 busheling	80.00 to	83.00
Shredder scrap	82.00 to	85.00
Machine shop turnings	24.00 to	27.00
Mixed borings and turnings	24.00 to	27.00
Shoveling turnings	37.00 to	40.00
Low phos. 5 ft. and under	75.00 to	78.00
Low phos. 2 ft. punchings	94.00 to	97.00
Electric furnace bundles	83.00 to	86.00
RR specialties	75.00 to	78.00
Rails, 2 ft. and under	95.00 to	98.00
Cupola cast	85.00 to	88.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	92.00 to	95.00

Detroit

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 47.00 to	$ 48.00
No. 2 hvy. melting	46.00 to	47.00
No. 1 dealer bundles	57.00 to	58.00
No. 2 bundles	28.00 to	29.00
No. 1 busheling	56.00 to	57.00
Drop forge flashings	38.00 to	39.00
Machine shop turnings	27.00 to	28.00
Mixed borings and turnings	9.00 to	10.00
Shoveling turnings	27.00 to	28.00
Cast iron borings	18.00 to	19.00
Heavy breakable cast	31.00 to	32.00
Mixed cupola cast	46.00 to	47.00
Automobile cast	70.00 to	71.00
Stainless		
18-8 bundles and solids	480.00 to	490.00
18-8 turnings	345.00 to	355.00
430 bundles and solids	115.00 to	125.00

Youngstown

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	52.00 to	53.00
No. 1 dealer bundles	67.00 to	68.00
No. 2 dealer bundles	31.00 to	32.00
Machine shop turnings	20.00 to	21.00
Shoveling turnings	20.00 to	21.00
Low phos. plate	70.00 to	71.00
Electric furnace bundles	59.00 to	60.00
Galvanized bundles	57.00 to	58.00

Cleveland

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 52.00 to	$ 53.00
No. 2 hvy. melting	50.00 to	51.00
No. 1 dealer bundles	70.00 to	71.00
No. 1 factory bundles	64.00 to	65.00
No. 2 bundles	29.00 to	30.00
No. 1 busheling	62.00 to	63.00
Machine shop turnings	20.00 to	21.00
Shoveling turnings	20.00 to	21.00
Cast iron borings	18.00 to	19.00
Cut structural & plates, 5 ft. and under	65.00 to	66.00
Cut structural & plates, 2 ft. and under	87.00 to	88.00
Low phos. punchings plate	87.00 to	88.00
Foundry steel, 2 ft. & under	53.00 to	54.00
No. 1 RR hvy. melting	59.00 to	60.00
Rails, 2 ft. and under	88.00 to	89.00
Rails, 18 in. and under	90.00 to	91.00
No. 1 machinery cast	78.00 to	79.00
Mixed cast	45.00 to	46.00
Stainless		
18-8 bundles	480.00 to	490.00
18-8 turnings	350.00 to	360.00
430 bundles	120.00 to	130.00

Buffalo

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 51.00 to	$ 52.00
No. 2 hvy. melting	41.00 to	42.00
No. 1 busheling	66.00 to	67.00
No. 1 dealer bundles	66.00 to	67.00
No. 2 bundles	29.00 to	30.00
Machine shop turnings	13.00 to	14.00
Mixed boring and turnings	13.00 to	14.00
Shoveling turnings	19.00 to	20.00
Cast iron borings	23.00 to	24.00
Low phos. plate	74.00 to	75.00
Structural and plate, 2 ft. and under	75.00 to	76.00
Rails, 2 ft. and under	75.00 to	76.00
Scrap rails, random lgth	61.00 to	62.00
No. 1 machinery cast	74.00 to	75.00
No. 1 cupola cast	69.00 to	70.00

St. Louis

No. 1 hvy. melting	$ 69.00 to	$ 70.00
No. 2 hvy. melting	54.00 to	55.00
No. 1 busheling	80.00 to	81.00
No. 1 dealer bundles	79.00 to	80.00
No. 2 bundles	48.00 to	49.00
Machine shop turnings	19.00 to	20.00
Shoveling turnings	23.00 to	24.00
Cast iron borings	29.00 to	30.00
No. 1 RR hvy. melting	74.00 to	75.00
Rails, random length	74.00 to	75.00
Rails, 18 in. and under	97.00 to	98.00
RR specialties	78.00 to	79.00
Cupola cast	71.00 to	72.00
Heavy breakable cast	45.00 to	46.00
Stove plate	91.00 to	92.00
Steel car wheels	80.00 to	81.00
Rerolling rails	99.00 to	100.00
Unstripped motor blocks	54.00 to	55.00

Birmingham

No. 1 hvy. melting	$ 70.00 to	$ 71.00
No. 2 hvy. melting	66.00 to	67.00
No. 1 dealer bundles	70.00 to	71.00
No. 2 bundles	46.00 to	47.00
No. 1 busheling	70.00 to	71.00
Shredder scrap	88.00 to	89.00
Machine shop turnings	23.00 to	24.00
Shoveling turnings	36.00 to	37.00
Cast iron borings	36.00 to	37.00
Electric furnace bundles	65.00 to	66.00
Elec. furnace, 3 ft. & under	66.00 to	67.00
Structural and plate, 2 ft.	87.00 to	88.00
Structural and plate, 4 ft.	81.00 to	82.00
No. 1 RR hvy. melting	81.00 to	82.00
Scrap rails, random lgth	70.00 to	71.00
Rails, 2 ft. and under	87.00 to	88.00
Angles and splice bars	81.00 to	82.00
No. 1 cupola cast	82.00 to	83.00
Unstripped motor blocks	72.00 to	73.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 51.00 to	$ 52.00
No. 2 hvy. melting	50.00 to	51.00
No. 1 dealer bundles	66.00 to	67.00
No. 2 bundles	32.00 to	33.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	19.00 to	20.00
Low phos. 18 in. and under	77.00 to	78.00
Rails, random length	59.00 to	60.00
Rails, 2 ft. and under	77.00 to	78.00
No. 1 cupola cast	64.00 to	65.00
Heavy breakable cast	25.00 to	26.00
Drop broken cast	70.00 to	71.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 42.00 to	$ 43.00
No. 2 hvy. melting	33.00 to	34.00
No. 2 dealer bundles	20.00 to	24.00
Mixed borings and turnings	10.00 to	11.00
Machine shop turnings	4.00 to	6.00
Shoveling turnings	10.00 to	12.00
Clean cast, chem. borings	35.00 to	36.00
No. 1 machinery cast	79.00 to	80.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	450.00 to	470.00
18-8 turnings	345.00 to	370.00
430 prepared solids	90.00 to	100.00
410 solids	75.00 to	85.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 49.00 to	$ 51.00
No. 2 hvy. melting	39.00 to	41.00
No. 1 dealer bundles	50.00 to	52.00
No. 2 bundles	32.00 to	34.00
No. 1 busheling	56.00 to	58.00
Shredder scrap	59.00 to	61.00
Machine shop turnings	12.00 to	14.00
Shoveling turnings	18.00 to	20.00
No. 1 machinery cast	72.00 to	77.00
Mixed cupola cast	44.00 to	46.00
Heavy breakable cast	8.00 to	10.00

San Francisco

No. 1 hvy. melting	$ 40.00 to	$ 42.00
No. 2 hvy. melting	34.00 to	36.00
No. 1 dealer bundles	31.00 to	33.00
No. 2 dealer bundles	20.00 to	21.00
Machine shop turnings	8.00 to	9.00
Cast iron borings	8.00 to	9.00
No. 1 cupola cast	80.00 to	82.00

Los Angeles

No. 1 hvy. melting	$ 34.00 to	$ 36.00
No. 2 hvy. melting	28.00 to	30.00
No. 1 dealer bundles	26.00 to	28.00
No. 2 dealer bundles	16.00 to	18.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Elec. furnace, 1 ft. and under (foundry)	67.00 to	69.00
No. 1 cupola cast	72.00 to	74.00

Seattle

No. 1 hvy. melting	60.00 to	62.00
No. 2 hvy. melting	51.00 to	53.00
No. 2 bundles	35.00 to	37.00
No. 1 cupola cast	89.00 to	90.00
Mixed yard cast	80.00 to	82.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 76.00
No. 2 hvy. melting, cut 2 ft. and under	67.00
No. 1 dealer bundles	82.00
No. 2 bundles	58.00
Mixed steel scrap	56.00
Bush. new fact. prep'd	77.00
Bush. new fact. unprp'd	60.00
Machine shop turnings	30.00
Short steel turnings	30.00
Mixed borings and turnings	19.00
Cast scrap	92.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 63.00 to	$ 64.00
No. 2 hvy. melting	52.00 to	53.00
No. 2 bundles	36.00 to	37.00
Machine shop turnings	11.00 to	12.00
Crushed turnings	28.00 to	29.00
Shredder scrap	73.00 to	74.00
Cut structural plate, 2 ft. and under	96.00 to	97.00
Cut structural plate, 5 ft. and under	75.00 to	76.00
Unstripped motor blocks	57.00 to	58.00
Cupola cast	85.00 to	86.00

A PRICE TURNAROUND MAY BE SHAPING UP

Producer prices for finished goods fell in each of the first four months of the year. At the close of April, these prices were down by 2.1 pct from a year earlier.

Still, it appears that a price 'bottoming' is shaping up. The price plunge has been led by lower tags for energy goods, and these prices are starting to firm.

For example, the price index for finished energy goods fell 8.4 pct in April. That's a big slide, but it pales next to the 13.4 pct drop in March. The easing off of price declines in energy goods translated directly into an easing of the overall price index for producers' finished goods in April. These prices declined by 0.6 pct.

Prices for capital equipment, while soft, marched to a different beat in recent months. These tags were up 0.3 pct in April.

In the case of capital equipment in April, the largest increases were for motor vehicles and pumps. Note on the table here that prices for light motor trucks in April rose by a stiff 2.0 pct from March—and were up 6.3 pct from a year earlier.

The newly-emerging price firmness is apparent in a glance at recent *Iron Age* producer price tables. There are 22 key metalworking product lines listed on the table. In April, prices for 16 of the lines showed price increases. In March, only nine of the lines showed price increases.

It appears that many producers are desperate for price relief. At the first sign competitors may be holding or raising prices, companies are quick to do so themselves. Given the new price firming in energy goods and the anxiety of corporate managers to get their tags up, a strong price turnaround could be in the making.

Latest Month Covered: April 1986

Products	Index Reading For Month (1967 = 100)	Pct Change From Previous Month	Pct Change From Year-Ago Month
Metal Cutting Machine Tools	400.7	+ 0.4	+ 1.3
Metal Forming Machine Tools	438.5	0	+ 1.5
Agricultural Machinery & Equip.	339.4	+ 0.2	+ 0.3
Construction Machinery & Equip.	386.1	+ 0.1	+ 1.2
Oil and Gas Field Machinery	424.1	0	– 0.7
Industrial Material Handling Equip.	296.0	+ 0.2	+ 0.6
Pumps, Compressors & Allied Equip.	361.0	+ 0.9	+ 1.4
Mining Machinery & Equipment	381.8	0	+ 0.9
Mechanical Power Transmission Equip.	343.9	+ 0.5	+ 1.9
Automobiles	232.8	+ 1.6	+ 2.9
Motor Trucks – Light	313.4	+ 2.0	+ 6.3
Motor Trucks – Heavy	340.4	+ 0.1	+ 2.2
Railroad Equipment	365.7	+ 0.3	+ 0.8
Fabricated Metal Structural Products	315.1	0	+ 0.2
Electric Motors	349.7	+ 0.1	– 0.3
Valves & Fittings (Dec. 1982 = 100)	107.2	+ 0.9	+ 2.8
Ball & Roller Bearings	355.6	+ 0.4	+ 2.3
Foundry & Forge Shop Products	365.3	+ 0.1	+ 0.7
Heating Equipment	267.3	+ 1.0	+ 3.6
Plumbing Fixtures & Brass Fittings	322.6	– 0.6	+ 3.6
Metal Containers	360.9	– 0.1	+ 0.8
Internal Combustion Engines	353.0	+ 1.0	+ 3.4

Data based on U.S. Labor Dept.'s Producer Price Index